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SIERRA LEONE



REPORT
ON THE
MEDICAL AND HEALTH SERVICES
FOR THE YEAR 1954



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FREETOWN :

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PART I—GENERAL REVIEW

PREFACE

This year's report is written in a different form. In past years the report has been delayed by the time taken in collecting and checking the statistics that are required, so that by the time they have been published the reports have been stale and out of date. Also, though a large body of statistics was recorded in appendices, this did not prevent the introduction of numerous statistical tables, and repeated isolated figures, and comparisons with figures in previous years, from being incorporated in the body of the reports. Though often valuable as records these interpolations of statistical information have tended to make the report heavy and indigestible, with little or no appeal to many people who might otherwise wish to read an authoritative account of the work of an important Government department.

To try to overcome these difficulties, this year's report is divided into two parts. Part I: this part is a "General Review"; Part II is to be "Statistical Information." It is hoped that the General Review will provide a comparatively brief, but comprehensive and readable account of the year's activities for the general public, while Part II, the Statistical Information, will record more detailed facts and figures for those who require them.

I—ADMINISTRATION AND STAFF

1. 1954 has seen a gradual development of the Department under the political responsibility of the Minister of Health, Agriculture and Forests, who is also the Chief Minister. As in all Governments with ministerial responsibility for departments, the framing of policy has been the concern of the Minister, the Director of Medical Services and his staff being responsible for advising the Minister and executing the Government's policy. This change in administrative and executive structure has had a smooth course, and holds out great hope for the future.

2. There has been also a development of Local Government. Local Government authorities are taking an increased share of responsibility in medical and health services so that the service as a whole is taking a new shape. On the 1st January this year, the District Councils took over the financial responsibilities of dispensaries and Health Centres in the Provinces, and the routine sanitation and maintenance of towns and villages. Non-pensionable staff were transferred and pensionable staff assigned. Supervision and training of staff remain as functions of the Government Medical Department.

3. Bo now has a Town Council which will be responsible for town sanitation, and Freetown is falling into line with these developments in Local Government elsewhere, for during the year it was decided to hand over to the Freetown City Council the administration of routine sanitation in Freetown. Details of the handing over are being worked out.

4. In place of a medical service administered up to the present almost wholly as a Government department, there are now emerging two distinct parts of the whole service. The Government Medical Department continues to administer hospital-services, the control of major endemic diseases, port-sanitation, the control of quarantinable diseases, and medical stores; Local Authorities are taking increased responsibilities in environmental sanitation, dispensary services, and local midwifery services. Outside the larger towns, the Local Authority services are to be based principally upon the new Health Centres, with their staff of Dispenser,

certified Midwife, and Health Inspector; these will for the present, all be members of the Government Medical Department, assigned for duty to local authorities. Certain lower-grade staff such as Health Overseers and the new Village Maternity Assistants mentioned below in paragraph 55, will be recruited and employed direct by the Native Authorities.

5. With ever increasing expansion of activity, the perennial problem of shortage of staff, particularly of Medical Officers, continues to cause concern. Though services have been maintained, and indeed, increased, this has led to a very heavy load of clinical work being placed upon some officers, a load which has been most willingly and loyally accepted. Eight Medical Officers left the Service either through resignation, transfer, or being invalidated, and only 6 were recruited. There are at present 27 Medical Officers in a total establishment of 38, with 11 vacancies. Three Government scholars are due to take up appointments next year and a possible 3 private scholars, all Sierra Leoneans; but 3 Medical Officers have already signified their intention to resign early next year. At the end of 1955, therefore, without the recruitment of expatriates, the position may still not be improved, and may become worse owing to the opening of new hospitals and Health Centres which are now being built.

6. In addition to the shortage of Medical Officers, the Department has suffered a heavy loss of senior staff, the Physician Specialist, Dr. P. C. Cosgrove and Senior Pathologist, Dr. J. D. Reid, have left and have not yet been replaced, and the Deputy Director, Dr. A. J. Johnson, has retired. The Director and the Senior Surgical Specialist will be retiring next year. The post of Pathologist which remained vacant for a long period was filled this year, but the officer has now resigned.

7. This serious staff position is occurring at a time when the original development plan for medical services is reaching its completion—at least as regards its building programme. Three new hospitals are already under construction at Kenema, Magburaka and Kono under Colonial Development and Welfare Scheme No. D1994. Magburaka is nearing completion. Building of the remaining hospital under this scheme, at Lungi, is about to start. Construction of another hospital at Kambia under Scheme D 2982 is also expected soon, and extensions to two hospitals at Port Loko and Moyamba will be made in 1955. Reference is made below to increased accommodation for tuberculosis and possible developments in maternity. In addition 8 of the 22 proposed Health Centres have been completed and the remainder should be finished within the next 18 months to 2 years. It is clear that the next 1 to 2 years will be most critical, for without considerable reinforcement, medical staff will be strained beyond capacity. Even with adequate reinforcement the considerable losses of experienced officers over the last few years means that staff will probably be comparatively young and inexperienced.

8. During the year a committee appointed to report on the salaries of Medical Officers holding clinic posts and the question of private practice made its report, which was accepted by Government. The salaries were considered in relation to the Sinker Report made in the previous year for the rest of the Civil Service, and the salaries recommended fall into line with the Sinker recommendations. They are a little less than those at present paid in Nigeria. Private practice is prohibited inside Government medical units, but there are considerable concessions for surgeons and dentists, and for consultant practice. Private practice is allowed outside Government units.

9. Of the whole strength of 34 medical practitioners employed both as temporary and permanent staff within the Department, 19 are Sierra Leoneans; that is more than half the medical strength of the service, including senior and administrative posts. One medical officer obtained the D.T.M. & H. after study leave.

10. Turning to other senior staff in the Department, of an establishment of 3 Senior Nursing Sisters, 2 are Sierra Leoneans, and of a total of 17 Nursing Sisters, 12 are Sierra Leoneans. All 3 Radiographers are from Sierra Leone, and there are 8 Sierra Leoneans out of a total of 14 Health Superintendents. All these appointments were formerly expatriates.

STAFF TRAINING

11. Developments of medical and health services with the increasing part taken by Local Authorities, and the building of new hospitals and Health Centres will require a considerable expansion of staff; but staff must be properly trained and most staff in the lower salaried grades must be trained locally. To this end the schemes for training of Dispensers, Health Inspectors, Nurses and Midwives have been reorganised to allow of a regular intake of students into the respective training schools, and to provide a new school for Health Inspectors with schemes of training for sanitary work in both towns and villages. The new schemes come into force in 1955, and it is hoped that by 1958 there will be an adequate number of trained personnel to meet the requirements of the Department.

12. Nurses were trained at the Connaught and Bo hospitals. The lack of Medical Officers at these institutions has not assisted in the raising of the standards of training.

13. Midwives were trained at the Maternity Hospital, Freetown, and are entitled to local registration after successfully sitting the examination. Eight Government candidates and one private took the Midwifery Certificate, and were registered as Midwives. In 1955 midwives will also be trained at Bo.

14. Dispensers are trained at the Connaught Hospital, and a licence is granted after they have successfully passed the examination. Four Government candidates passed the Druggist Examination this year and were awarded the certificate.

15. Health Inspectors have been trained in Freetown during the year and the course extends over a period of three years before the final departmental examination is taken. Every encouragement is given to the Inspectors to sit for the Certificate of the Royal Sanitary Institute (West Africa). The prospect of recruitment appears better now, but to obtain the requisite numbers the educational qualification has had to be lowered, making the majority of entrants ineligible for the Sanitary Inspectors Certificate Examination of the Royal Sanitary Institute. It is proposed to start an intensive training programme next year to provide adequate trained staff for the staffing of Health Centres in the Provinces; in future practical training of the kind required will be given at Bo and in surrounding villages, and not in Freetown.

II—GOVERNMENT MEDICAL SERVICES

HOSPITAL SERVICES

16. Despite staff difficulties, all institutions have worked to full capacity, and there has been some expansion of work. There has been an increase in the numbers of both in-patients and out-patients treated, attributable to the increasing realisation by the public of the great efficiency of new drugs and new methods of treatment, and of more general acceptance of hospital treatment. In-patient admissions to Government hospitals during the past 12 months were approximately 11,600, out-patient and dispensary attendances were well over a million.

17. After years of valuable service, the Church Missionary Society could not continue the management of the Princess Christian Mission Hospital and it was closed in March this year. This closure made a large increase in the maternity and child welfare work done by Government Medical Officers. The hospital has now been taken over by Government, and has been re-opened as an extension

of the Connaught Hospital to accommodate convalescent women. Its full development is dependent upon provision of adequate staff, but proposals are now being considered to re-open the hospital as a maternity and paediatric hospital.

18. With the urgent need to provide better hospital services at the Provincial Headquarters in the South-eastern Province, a temporary hospital was opened at Kenema to serve the area until the new hospital now under construction is completed.

19. Buildings at Lakka formerly used as a hospital for infectious diseases, have been temporarily converted for use as a Tuberculosis Hospital, and were opened for this purpose in June. It has provided improved accommodation for tuberculosis patients, with some relief of congestion at the Connaught Hospital and has reduced the dangers of cross-infection with tuberculosis in Government hospitals. An application for assistance under Colonial Development and Welfare Aid has been made to meet the cost of converting this temporary hospital into a proper sanatorium.

20. The provision of a proper isolation hospital for infectious diseases has not been lost sight of. It is to be built on land in the vicinity of the site for the proposed new sanatorium and it is hoped that the cost will be met from local resources.

MATERNITY AND CHILD WELFARE SERVICES

21. All hospitals have some facilities for maternity work, and these facilities will increase with the new hospitals, and extensions that are being made to old hospitals. There is a separate Maternity Hospital in Freetown, and a separate maternity unit at Bo hospital. There will be separate units in the new hospitals at Magburaka and Koidu which are being built. Other hospitals have beds available for maternity cases. All these units are a part of the Government hospital services.

22. A Domiciliary Midwifery Service was started in Freetown on the 1st July, 1954, providing facilities for ante-natal and post-natal treatment, and for home-confinement for paying patients, in addition to the services already provided at the Maternity Hospital. It is a Government service based on the Maternity Hospital. Of 18 patients who received attention under the scheme up to the end of the year, only 7 were delivered in their own homes. Six were admitted to hospital for delivery, mostly for complications needing hospital treatment, and 4 went to the United Kingdom for delivery. One had received ante-natal attendance but later made her own arrangements for her confinement.

23. Private ante-natal clinics are held for patients booked under the scheme, the deliveries are conducted by a Sister or fully qualified Midwife, with the services of a Medical Officer if they are required. After confinement patients are visited twice daily for three or four days and then once daily until mother and child are well. Charges are scaled according to income or salary. Some women seem to be reluctant to make use of this Domiciliary Service, because they feel that the treatment they receive is the same as the free treatment in the public maternity wards and clinics, though they have to pay more for it. Treatment in both cases is, of course, the best the Department can give; the chief advantage of the Domiciliary Service is to provide privacy for those who desire it, and this cannot be provided without extra expense.

24. There has again been an increase in the amount of work done in the Freetown Maternity Home. Again this increase has only been attained by very early discharges from hospital as was noticed in last year's Report.

25. In Freetown Maternity Hospital there were 1,561 live births during the year, that is about half of the total number of 3,096 live births registered in Freetown.

26. In the Protectorate 481 deliveries were recorded in Government hospitals.

27. Local Authority Maternity Services in the Provinces, and in villages are referred to in paragraph 55 below.

28. The school clinic was maintained as usual in Freetown, a Lady Medical Officer being posted from July to September. Unfortunately illness and sick leave prevented whole time attendance of a Medical Officer at this clinic and in the absence of a posting it has been in the charge of a Health Visitor.

MENTAL HOSPITAL

29. The hospital still remains very overcrowded with inadequate segregation of violent, criminal, or offensive lunatics from patients under observation, or whose mental condition is relatively mild or amenable to treatment. Plans have been approved for extension of the hospital at Kissy, and Government has approved in principle the construction of a Provincial Mental Hospital and the design has been approved, but it has not yet been possible to start work on either project.

INSTITUTIONS

30. The Female Infirmary and King George V Memorial Home at Kissy continue to provide a refuge for the aged and infirm.

PRISONS

31. The health of prisoners has been satisfactory.

ENDEMIC DISEASES CONTROL UNIT

32. *Trypanosomiasis*.—Wunde Chiefdom was surveyed in Bo District to complete the survey of chiefdoms south of Blama where so much sleeping sickness was found in 1948 and 1949. Only 7 cases were found in 4,000 people examined. Very few cases were diagnosed at treatment centres and it does not seem that sleeping sickness is now sufficiently prevalent to justify a full scale mobile campaign. Small sampling surveys are still required to watch for a renewal of activity, but with present shortage of staff a Medical Officer cannot be detailed to supervise them. These sampling surveys are not at all reliable without medical supervision.

33. *Schistosomiasis*.—An extensive survey of Kono District was made by Dr. Gerber, and he also undertook extensive trials in Kenema and Kailahun districts of the molluscicide, sodium pentachlor-phenate, demonstrated in 1952 by Dr. E. G. Berry, including a planned attempt to eliminate *Physopsis* snails from one chiefdom. It is clear that the whole of Kono District is heavily infected. After promising early results with the molluscicide, the conclusion was that re-infestation occurred very quickly through failure to kill the eggs. Higher dosage or more prolonged application would be needed than was possible in this trial, or alternatively intermittent dosage would be needed to kill newly hatched snails. Another factor was the difficulty in tracing pools which are unconnected with the streams in the dry season, and are missed. There are many of these pools, it is very difficult to find all of them, and they can act as hidden nurseries of snails which re-infest the streams in the wet season.

34. This work has now had to stop as no Medical Officer is available to replace Dr. Gerber who has left the Sierra Leone Service.

35. *Yaws*.—Dr. Cruz Ferrieria of the World Health Organisation visited the unit in January at Kenema and noted the very low incidence of yaws—cases seen being plantar crab-yaws a tribute to the work of the Unit in past years in this area.

36. Dr. C. J. Hackett visited and advised about a projected campaign with UNICEF aid to cover the whole Northern Province. He noted a high incidence of yaws in this area, where the Unit has not yet been very active, with many types of yaws, particularly body framboesia in children.

37. It will be extremely difficult to find adequate medical staff for the proposed campaign without relaxing control of other diseases.

38. *Leprosy*.—In the South-eastern Province the number of new cases reporting for treatment has fallen, and it is believed that around treatment centres most obvious cases have been treated. Unfortunately many cases fail to report after about a year's attendance, when obvious signs have disappeared. There is a need for instruction of attendants, and for a follow-up scheme to examine defaulters. On the whole the sulphone treatment of lepers by the Unit started in 1953 has been successful, but it will now need more concentrated development. The number of new cases and of subsequent attendances at a treatment centre appears to be a good index of the ability and enthusiasm of the attendant. Like most diseases much better results would be obtained if a Medical Officer could spend more time visiting the treatment centres. Even so, astonishingly good results have been obtained in some places where patients have been under almost continuous treatment for two years. Some of these old burnt-out cases have been told that treatment could now cease, but the patients have been most anxious to continue taking the pills which apparently make them feel so much better. The Unit cannot achieve much more than it is doing in leprosy control without the full time services of a leprosy Medical Officer.

39. This Unit has during the 14–15 years of its existence done magnificent work for which it rarely receives full credit. Sleeping sickness in the early 1940s attained such a menacing form in the South-east Province, that there was a threat of serious depopulation. This might well have affected the mining enterprises in the Province with direct adverse effects on the country's economy. Now, solely due to the work of the Unit, sleeping sickness has become a negligible disease, and yaws also has been reduced. A start has been made to deal with leprosy, but success will not be achieved without medical staff. The Unit is left with one Medical Officer, with no immediate hope of increasing its strength, and there is a danger that much that has been gained may be lost.

ENTOMOLOGICAL LABORATORY

40. The old Malaria Control Unit has been reorganised and amalgamated with the Health Service on 1st January, 1954. The Freetown Health Department has taken over routine larvical activity in the town as a part of general environmental sanitation. Increased reliance is placed upon residual house-spraying in the suburbs around Freetown, with apparently good results, but estimation of results has been handicapped by the lack of Medical Officers to do adequate clinical and pathological investigation. It has not been possible to put great reliance on some records of parasite-rates for this reason.

41. The Entomological Laboratory is now established as a unit of the Health Service, and is responsible for new malaria-control methods, and pilot control-schemes, both in Freetown and the Provinces. Villages around Lungi Airport are controlled by house spraying, to protect the airport from *A. gambiae* and the effect on the villages is being observed. Preliminary surveys of malaria incidence are being made in the rice-growing areas around Rokupr, with a view to malaria control with a residual insecticide.

42. The Medical Entomologist continues to make the full half-yearly reports made by the former Malaria Control Unit for limited distribution.

PATHOLOGICAL LABORATORY

43. The laboratory suffered a great loss by the departure on retirement of Dr. J. D. Reid, the Senior Pathologist. A second Pathologist was recruited and joined the Department early in the year, but was invalidated at the end of the year and has resigned, the laboratory being left in charge of the Laboratory Superintendent. Over 60,000 examinations of various kinds are done in this laboratory, a great amount of work for the small staff.

PORT HEALTH

44. The general sanitation at Lungi Airport has been maintained throughout the year. Considerable economy in labour was effected by the posting of a Chief Health Superintendent to the Airport. This officer supervised the whole malaria-control scheme, and carried out the quarterly B.H.C. spraying of villages in the vicinity of the airport, using the airport sanitary labour only.

45. Large numbers of coconut trees which were causing dangerous potential *Aedes aegypti* breeding places have been removed, and harmless shade trees have been planted to replace potentially dangerous flamboyant trees.

46. The new Queen Elizabeth II Quay opened during the year and is now in full operation. Good sanitary control in co-operation with the Port Management was obtained from the start, and sanitary conditions, including control of vaccination, are incomparably better than at the congested old wharf. Rodent control on and around the quay is by permanent baiting with Warfarin. The Health Office has been moved to premises adjacent to the new quay.

47. The Department now receives the World Health Organisation Radio Epidemiological Bulletin from Geneva. It is received daily by Lungi Radio-station, and sent directly it is received to the Airport Medical Officer at Lungi, copies are also sent over to Freetown for the information of the Freetown Port Health Officer and the Director of Medical Services. The arrangement has worked well, and reception has been regular. The system has replaced very numerous cables formerly sent and received.

48. There was no case of quarantinable disease in the neighbourhood of any port or airport during the year.

MEDICAL STORES

49. Supplies on the whole have been adequate, but there are still complaints from Medical Officers of the inadequacy of supplies of antibiotics, especially penicillin. On the other hand there was some evidence of excessive use or leakage into unauthorised hands of valuable antibiotics from hospital stores. This has been checked.

50. Difficulties have been experienced in the long delays in carriage of supplies between the central stores and the hospitals, and the possibility of more rapid movement of stores is being investigated.

III—LOCAL AUTHORITY HEALTH SERVICES

51. On 1st January, all Health Centres, Dispensaries and sanitary equipment in the Provinces were handed over to the District Councils. £15,126 which would formerly have been included in the Medical Department estimates of annual expenditure were transferred to the District Council's expenditure. This represents the annual cost of labour—mostly sanitary labour—general supplies for dispensaries, etc., and travelling costs for leaves and transfers of assigned staff.

52. Pensionable staff, that is Dispensers, Midwives and Health Inspectors are assigned to duty with the District Councils, but are still paid from the Department vote, and remain Government officers under departmental discipline. The annual expenditure on salaries for these officers amounts to approximately £8,000.

53. Chiefdom Estimates also provided for an expenditure of £26,586 for Medical and Health Services, spent on activities varying from small maternity homes to sanitary labourers and overseers in towns and villages.

54. The Rural Areas Council also has responsibilities as a Sanitary Authority and owns or rents some village dispensaries.

55. Plans for the development of Local Authority Maternity Services in the Provinces and in villages have already been made public and the preliminary work of recruiting suitable women for training has started. These women who will be called Village Maternity Assistants, to distinguish them from fully registered midwives, will be recruited by Native Authorities in the villages, and trained in the practical conduct of normal labour in district hospitals. The curriculum of instruction is to be based on Dr. M. A. S. Margai's Handbook of Midwifery, written in Mende; a translation into Temne is to be made. It is intended that as they become trained they should deliver women in their homes, under the supervision of fully-trained Midwives at the new Health Centres. There is to be a Supervisor who will be a registered Midwife. Success of this experiment will depend on the adequacy of supervisory staff.

56. It is clear that the activity of local health services is already substantial, it represents about a tenth of total recurrent expenditure on health services as a whole. As the new Health Centres and the Village Maternity Assistants come into full action, and other local government bodies such as the Freetown City Council, become fully responsible for local sanitation, this proportion is bound to increase.

57. It is difficult with existing medical staff to give the amount of medical supervision to these activities which is desirable, and there have been difficulties in recruiting Health Inspectors, and in posting supervisory Health Superintendents in the Provinces. The provision of quarters has been one stumbling block. It is hoped that some of these difficulties will be resolved in 1955 and that at least as regards sanitary services there will be more adequate supervision, skilled advice to Local Authorities, and increased staff-in-training.

58. Environmental sanitation in the health areas scheduled in the Public Health (Protectorate) Ordinance inevitably varies with the finances, and development of the particular areas, and upon the energy and ability of the Health Authority. The following extracts from the annual reports of Medical Officer, Pujehun, and Medical Officer, Kabala, are given as typical of many reports made about the smaller towns, which clearly indicate what sort of work is accomplished, and the enormous problem which faces the Local Authorities in environmental sanitation.

i. *On a District Headquarters Town, with a Special Health Authority.*

The town is on the whole clean, but more could be done to improve the state of individual compounds. The streets are in the main narrow, and dust raised by passing vehicles is a constant source of nuisance to the occupants. The piped water supply functions, but inadequately.

ii. *On Towns in Scheduled Health Areas.*

(a) The town is situated on high ground, a swamp runs through it, and serves as a very good drain for the town. The town is generally clean, and well kept. Sanitary structures are well maintained. Several visits were made during the year to this town, and the school inspected. The general health of the children was good.

(b) This town has improved a little during the year. The houses are well built but the number of latrines is almost negligible. Four Native Administration Sanitary labourers are employed but they are usually left to their own devices as the Sanitary Inspector is only able to pay occasional visits to the town. All the school children were vaccinated during the year along with other people who presented themselves.

The water supply continues to be extremely meagre. This of course results in a lower standard of personal hygiene and a higher incident of scabies and similar skin conditions.

Eleven houses and 9 kitchens were pegged out during the year. The market hall continues to stand unused and will soon be derelict.

- (c) The four Native Administration labourers continue to keep the town in relatively clean condition. The drains are reasonably good but some culverts could be used to advantage. The market hall is now quite a commercial centre and the town is on the whole reasonably prosperous. Cattle are slaughtered frequently and sold in the market stall in the market.

The new well has now been dug and the water appears satisfactory. The pump has not yet been transferred from the old well due to lack of funds. Seven houses, 3 kitchens and 2 latrines were pegged out during the year.

iii. *On Towns not in Scheduled Health Areas.*

- (a) Sanitary conditions very poor. There are only two pit latrines in a town of about thirty houses. Water supply is from a swamp that runs dry during the Dry Season. Plans are on foot for the sinking of a deep well.
- (b) The majority of the houses are now equipped with doors and windows. The number of latrines is still not as high as could be desired but the situation is gradually improving. The town is clean and tidy with a good water supply. The compost fences are now in constant use. No additional houses were pegged out during the year.
- (c) Several old houses were demolished and forty-seven new houses were built on the cleared sites. The people are quite enthusiastic and this town will soon be ready for inclusion as a Health Area.

IV—THE PUBLIC HEALTH

59. In Freetown, the infantile mortality rate was the lowest ever recorded—110 infant deaths per 1,000 live births. As a high proportion of infant deaths are neonatal deaths occurring in the first month of life, the reduction may well be due to the large numbers of births conducted in the Maternity Home referred to in paragraph 25. Many infant deaths are still attributed to neonatal tetanus, and this disease, above all others, disappears when confinements are conducted by trained midwives. The sustained reduction in malaria infection in Freetown no doubt plays a part also. The recorded rate may be influenced, however, by the registration of all Maternity Home births, wherever the place of residence of the mother may be, as in Freetown. This could reduce the rate to a misleadingly low figure; this is discussed in Part II of this Report.

60. A factor of increasing importance in the public health of areas away from hospitals is the uncontrolled "injection practice" conducted by unqualified people without medical supervision. The Department of Commerce and Industry, the Customs and the local agents of reputable pharmaceutical manufacturers give the fullest co-operation in controlling the importation and sale of antibiotics, scheduled poisons, and proprietary medicines. But it is well known that penicillin of doubtful origin, and numerous other drugs for injection, including arsenic preparations, are on free sale or are freely available in places all over the country. It has been reported that in some shops ampoules of distilled water for injection are openly on sale, and are bought by the credulous at a high price. One dispensary attendant was found in possession of acetylarsan, but it was not possible to take proceedings against him for illegal possession of a Schedule I poison in the present state of the law, and the police could not prosecute for theft on the evidence available. Departmental experience has shown clearly in the past that acetylarsan is not well tolerated by the local population for some reason

unknown, and deaths have occurred after unexpectedly small dosage. It is still used, often in unauthorised uncontrolled practice, though penicillin is a far more effective, and infinitely safer treatment for the treponemal diseases in which arsenicals such as acetylarsan are used. The projected yaws campaign with penicillin would be a sound first step towards rectifying this state of affairs, together with increased supplies to hospitals.

61. Deaths have also been suspected from the misuse of certain patent medicines, in one case it would appear by gross overdosage with a comparatively harmless preparation. Certain "Worm" preparations of which there are a number of different types on free sale have been reported as probably having caused the death of children to whom they were administered. One brand of "worm cake" or "worm tablet" has been found to contain calomel with an anthelmintic, and the dangers of this are now well recognised; particularly as in local conditions overdosage, or long repeated dosage, is very likely to occur among ignorant and illiterate parents.

COMMUNICABLE DISEASES (See also paragraphs 32-42)

62. *Yellow Fever*.—Four cases of suspected yellow fever, two of which proved fatal, were reported by the Medical Superintendent of the Nixon Memorial Hospital at Segbwema. Blood from the two survivors taken nine to ten days after onset gave positive mouse protection tests. One of these was a Lebanese, and it is not known whether he was vaccinated. Liver from the last fatal suspect proved that this was not a case of yellow fever. The two survivors were said to be working in Sando Chiefdom probably on illicit diamond diggings. They were reticent about their movements before their illness, and enquiries around the digging areas in Sando were difficult to make. Conditions such as this, with uncontrolled labour of doubtful vaccination or immunity state, can only be viewed with apprehension, as they might form a good starting point for an epidemic disease.

63. *Smallpox*.—There has been no serious outbreak of smallpox. There were five notifications all near to the eastern borders of the country. One notification was made by a non-Government Medical Officer of a suspected smallpox in a European who had been in a West African mail ship at the presumed date of infection. The case, and a contact later diagnosed, were eventually shown not to be smallpox in spite of apparently typical clinical appearances.

64. *Rabies*.—There were serious outbreaks of canine rabies, particularly in the Freetown District, where about 3,000 dogs have been destroyed in the year. There has been difficulty in securing the application of dog-licensing legislation. Vaccination with Fleury vaccine has been offered at cost, and about 152 dogs have been vaccinated at the request of their owners. There was one known death from human rabies in Freetown. An attempt is to be made to introduce compulsory vaccination of dogs where dog licensing is enforceable.

65. *Tuberculosis*.—A few Heaf tuberculin tests were done, with some outside Freetown. It is still not clear to what extent non-specific reactions give false positives, but judging from these tests infection appears to be widespread, and as common in some provincial towns as in Freetown.

66. *Other Diseases*.—Other infectious diseases remained as common as before, and there is the usual picture in the records of large numbers of cases treated of intestinal infections, including dysenteries and typhoid fevers; respiratory infections; yaws; and diseases of the bones and organs of locomotion.

67. *Goitre*.—Dr. D. C. Wilson of Oxford University made a survey of goitre, and showed that as elsewhere in Africa, goitre is found in granite-country, and in Sierra Leone is associated with a very low iodine-content of natural waters. As imported salt is increasingly used, the restriction of imports to iodised salt could abolish goitre in the endemic north-eastern highlands of the country.

V—GENERAL

ACCIDENTS

68. *Motor-Vehicle Accidents.*—Since 1952 the number of patients treated for accidents has been shown separately in the statistical returns of patients treated at Government hospitals. There has been a decided increase in the records of numbers of persons treated for motor-car accidents but this may be due to more accurate recording. A thousand patients are reported as having been treated for motor-vehicle accidents during 1954, and about 5,000 for other transport accidents; many of the latter may be in fact, attributable to motor vehicles. Most motor-vehicle accident cases were recorded in Freetown, Moyamba, Makeni, Kabala and Bo in that order.

69. *Firearms.*—Well over a hundred injuries from firearms are recorded, all in provincial hospitals. These are generally due to the use of unsafe guns. The small hospitals of the Northern Province treated more of these cases than the whole of the rest of the country.

70. *Important Visitors.*—The following distinguished visitors gave valuable advice during their stay in Sierra Leone:—

1. Dr. F. Cruz-Ferreira of World Health Organisation, c/o United Nations Centre, Monrovia, Liberia.
2. Dr. J. C. Hackett, M.D., F.R.C.P., Headquarters Staff, World Health Organisation.
3. Mr. Karl Borch, Ph.D., Deputy Chief Representative, U.N.I.C.E.F.
4. Lieutenant-Colonel J. Walters, Secretary, West African Council for Medical Research.
5. Sir Eric Pridie, K.C.M.G., O.B.E., D.S.O., Chief Medical Officer to the Secretary of State.
6. Dr. F. E. Byron, Food Technologist, Applied Nutrition Unit, London School of Hygiene and Tropical Medicine (University of London).
7. Mr. G. A. Atkinson, Secretary of State's Adviser on Housing.
8. Dr. J. A. M. Karefa-Smart, M.D., Public Health Officer, World Health Organisation.
9. Dr. D. C. Wilson, M.R.C.P., Human Nutrition Laboratory, Oxford University.

71. The Acting Deputy Director of Medical Services, Dr. T. P. Eddy, attended the World Health Organisation Africa Area Committee at Leopoldville in September.

72. The Deputy Director of Medical Services, Dr. A. J. Johnson, attended the preliminary meeting of the West African Council for Medical Research and the fifth Conference of Directors of Medical Services in West Africa at Lagos in February.

73. *Legislation.*—The following were enacted during the year:—

Public Notice No. 15/1954—The Dogs Ordinance—Cap. 67

Public Notice No. 19/1954—The Public Health (Protectorate) Ordinance—Cap. 191

Public Notice No. 20/1954—The Public Health (Protectorate) Ordinance—Cap. 191

Public Notice No. 75/1954—The Public Health Ordinance—Cap. 190

Public Notice No. 96/1954—The Dogs Ordinance—Cap. 67

Public Notice No. 97/1954—The Dogs Ordinance—Cap. 67

Ordinance No. 13/1954—An Ordinance to Amend the Births and Deaths (Protectorate) Registration Ordinance, 1948

Ordinance No. 21/1954—An Ordinance to Amend the Lunacy Regulation Ordinance

T. P. EDDY,
Acting Director of Medical Services.

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PART II.

STATISTICAL INFORMATION
ADMINISTRATION AND STAFF
ESTABLISHMENT

Administration

1 Director	1 Assistant Stock Verifier
1 Deputy Director	2 Hospital Secretaries
1 Assistant Director	1 Chief Clerk
1 Administrative Secretary	3 First Grade Clerks
1 Stock Verifier	38 Second and Third Grade Clerks

General

2 Senior Specialists	1 Specialist
1 Senior Medical Officer (Health)	2 Medical Officers (Health)
1 Senior Medical Officer	31 Medical Officers (including Lady Medical Officers)
3 Medical Officers—Endemic Diseases Control Unit	

Nursing

3 Senior Nursing Sisters	1 Senior Surgical Assistant
13 Nursing Sisters	1 Surgical Assistant
4 Health Sisters	30 Probationer Infectious Diseases Nurses
4 Senior Staff Nurses	1 Linen Store Supervisor
8 Staff Nurses Grade I	1 Laundry Supervisor
10 Staff Nurses Grade II	1 Health Visitor Grade I
164 Nurses and Midwives	2 Health Visitors Grade II
120 Student Nurses and Student Midwives	8 Health Visitors Grade III

Laboratory

1 Senior Pathologist	1 Laboratory Assistant Grade I
1 Pathologist	1 Laboratory Assistant Grade II
1 Laboratory Superintendent	6 Laboratory Assistant Grade III

Pharmaceutical

1 Chief Dispenser	7 Dispensers Grade I
2 Senior Dispensers	47 Dispensers Grade II and III

Radiological

4 Radiographers	1 X-ray Attendant
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4 Dental Officers	2 Dental Mechanics
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Mental

40 Senior Attendants and Attendants

Health

7 Health Inspectors Grade I
10 Health Inspectors Grade II
41 Health Inspectors Grade III
18 Health Inspectors-in-training
1 Malaria Inspector

Medical Stores

1 Storekeeper and Inspecting Pharmacist	3 Store Assistants Grade I
3 Assistant Medical Storekeepers and Inspecting Pharmacists (including one supernumerary)	6 Store Assistants Grade II
	3 Store Assistants Grade III
	10 Store Issuers

Endemic Diseases Control Unit

2 Senior Attendants Class I	31 Attendants and Learners
15 Senior Attendants Class II	

Transport

3 Senior Drivers
28 Drivers

Miscellaneous

Stokers, Cooks, Porters, Ward Attendants, Messengers, Packers, Telephone Operators,
Sewing Maids, Mosquito Spotters, Court Messengers, etc.

2—FINANCE*Expenditure during past 3 years*

	Personal Emoluments	Other Charges	Total..	1952	1953	1954
				£	£	£ s. d.
	140,534	196,286	228,062 4 6
	195,419	198,358	208,355 15 11
				335,953	394,644	436,418 0 5

In addition there was the following expenditure on Medical Schemes under the Colonial Development and Welfare Act.

	Protectorate Health Centre	Health Centres—Colony	New hospital, Kenema	New hospital, Koidu	New hospital, Magburaka	Lungi Hospital	New hospitals, Kambia and Port Loko	Total Cost of Scheme	Expenditure to 31st December, 1954		
								£	..	£	s. d.
	83,583	..	9,823	2 0
	41,740	..	4,559	10 10
	35,700	..	12,492	0 8
	49,000	..	9,367	9 11
	83,200	..	29,381	15 3
	35,700	..	4,662	19 11
								40,700	..	nil	

II—GOVERNMENT MEDICAL SERVICES—HOSPITAL SERVICES

GOVERNMENT HOSPITAL BEDS

NUMBER AND CATEGORY OF BEDS

Name and Location of Hospital		General	Obstetrical	Tuberculosis	Infectious	Mental	Remarks
A. COLONY							
Connaught ..	..	132	—	18	4	—	+ 23 Cots
Connaught Annexe ..	..	20	—	—	—	—	+ 2 "
Hill Station ..	..	30	—	—	2	1	+ 2 "
Maternity ..	..	—	49	—	—	—	+ 39 "
Murray Town ..	..	60	—	—	—	—	
Lakka Tuberculosis ..	..	—	—	72	—	—	
Kissy Mental ..	..	—	—	—	—	112	
King George V Memorial Home ..	..	64	—	—	10*	—	For the aged and indigent
Female Infirmary ..	..	30	—	—	—	—)
Princess Christian Mission ..	..	16	—	—	—	—)
B. PROTECTORATE							
Bo ..	..	70	10	4	8	—	+ 8 Cots
Bo Annexe ..	..	4	—	—	—	—	
Bonthe ..	..	32	6	—	2	—	+ 2 "
Moyamba ..	..	16	2	—	—	—	+ 1 Cot
Pujehun ..	..	12	1	5	4	—	+ 2 Cots
Kailahun ..	..	23	—	—	3	—	+ 1 Cot
Makeni ..	..	23	3	—	—	—	+ 2 Cots
Port Loko ..	..	18	—	—	—	—	+ 2 "
Kabala ..	..	30	—	—	—	—	
Lungi ..	..	12†	—	—	—	—	
Kenema ..	..	10	—	—	—	—	
Total ..	..	602	71	99	33	113	+ 84 ,,

* For Leprosy

† The twelve beds in this Institution are reserved for emergency and in the event of an accident to Aircraft.

ATTENDANCES AT GOVERNMENT HOSPITALS

Name of Institution			In-patients	OUT-PATIENTS		
				New Cases	Subsequent Attendances	Total Attendances
A. COLONY:						
Connaught ..	..	..	..	2,695	50,831	199,544
Hill Station ..	..	..	..	389	873	1,930
Maternity ..	..	..	..	2,384	—	—
Cline Town ..	..	..	..	—	18,407	47,729
TOTAL ..	..	..	..	5,468	70,111	267,610
B. PROTECTORATE						
Bo ..	..	..	..	2,263	19,059	80,844
Njala ..	..	..	..	—	6,609	11,925
Bonthe ..	..	..	..	604	6,749	29,959
Moyamba ..	..	..	..	492	14,350	31,958
Makeni ..	..	..	..	604	13,495	48,132
Pujehun ..	..	..	..	487	10,977	35,422
Port Loko ..	..	..	..	457	11,047	42,574
Kailahun ..	..	..	..	340	4,610	17,921
Kabala ..	..	..	..	702	* 9,364	* 49,264
Lungi ..	..	..	..	—	4,655	10,753
Kenema (opened in February, 1954) ..	..	..	217	7,048	17,026	24,074
Total ..	..	..	6,166	107,963	274,863	382,826
COLONY HOSPITALS ..	..	..	5,468	70,111	197,499	267,610
PROTECTORATE HOSPITALS ..	..	..	6,166	107,963	274,863	382,826
GRAND TOTAL ..	..	..	11,634	178,074	472,362	650,436

*Including Musaia

MATERNITY AND CHILD WELFARE SERVICES

Attendances and bed space are included in tables under Hospital Services above.

Freetown Maternity Home.

In Freetown, out of a total of 1,648 deliveries there were 1,222 normal cases. Of the 426 abnormalities, a perineal tear or episiotomy accounted for 149; there were 101 operations under general anaesthesia and 176 other abnormalities.

Forty-six of the total 1,648 deliveries were twin deliveries. 1,694 babies were born, of these 184 were described as premature including 30 sets of premature twins.

Eighty-one still births and 28 post-natal deaths occurred in the 1,510 full-term infants.

Fifty-two still births and 36 post-natal deaths occurred in the 184 premature infants.

Twenty-nine deaths occurred in 91 babies born before admission to the Maternity Hospital; of these 17 died of tetanus neonatorum.

There were 27 maternal deaths.

Domiciliary Midwifery Service.

18 patients were booked.

7 were delivered at home.

5 were admitted to the Maternity Home for complications.

6 made other arrangements for delivery.

In the Provincial hospitals 440 women were admitted for normal deliveries, with 224 admissions for complications of pregnancy, childbirth, or the puerperium.

Four hundred and eighty-one total deliveries were reported. Of these 264 deliveries took place at Bo Hospital of which 221 were normal deliveries and 43 were complications.

Maternity and Welfare Clinics.

ATTENDANCES AT FREETOWN CLINICS

				New Cases	Subsequent Attendances
Ante-natal and Post Natal Clinics	..	..	..	6,268	16,626
Gynaecological V.D. Clinic	..	..	..	272	3,281
Infant Welfare Clinic	..	..	..	4,220	11,710

Home Visits by Freetown Health Visitors

Ante-Natal Visits	..	..	..	2,104	2,984
Post-Natal and Infant Welfare Visits			..	3,594	19,590

ATTENDANCES AT BO ANTE-NATAL CLINIC

			Year	
			1952	1953
New Cases	..	..	559	669
Subsequent Attendances	..	..	1,198	2,842
				1954
				831
				2,563

ATTENDANCES AT BO INFANT WELFARE CLINIC

			Year	
			1952	1953
New Cases	..	..	456	513
Subsequent Attendances	..	..	1,266	2,050
				778
				3,530

School Medical Services

		First Attendances	Subsequent Attendances	Total Attendances
Freetown School Clinic	..	12,933	11,507	24,440
Saint Joseph's Convent	..	8,644	6,989	15,633

MENTAL HOSPITAL

Numbers of Patients admitted to Kissy Mental Hospital during the year:

		<i>Males</i>	<i>Females</i>	<i>Total</i>
Remaining in hospital 31st Dec., 1953 ..		137	47	184
Admissions		40	17	57
Discharges		21	1	22
Absconded		—	—	—
Deaths		18	8	26
Remaining in hospital 31st Dec., 1954 ..		138	55	193

Causes of death were reported to have fallen into three main groups

- (i) Diseases of old age
- (ii) Syphilis
- (iii) Intestinal parasites and infections.

INSTITUTIONS

Admissions and discharges at the Kissy Female Infirmary and the King George V Memorial Home were:

		<i>Males</i>	<i>Females</i>	<i>Total</i>
Remaining in hospital 31st Dec., 1953 ..		74	29	103
Admissions		31	9	40
Discharges		5	1	6
Deaths		27	7	34
Absconded		3	—	3
Remaining in hospital 31st Dec., 1954 ..		70	30	100

ENDEMIC DISEASES CONTROL UNIT

Sleeping Sickness Surveys:—

			<i>Total Examined</i>	<i>Total Cases</i>	<i>Incidence</i>
			<i>Sleeping Sickness</i>	<i>Sleeping Sickness</i>	
Wunde Chiefdom	..	..	4,000	7	0.2 per cent

Treatment Centre Returns

	<i>Sleeping Sickness</i>	<i>Yaws</i>	<i>Bilharzia</i>	<i>Dysentery</i>	<i>Amoebic</i>	<i>Leprosy</i>	<i>Total New Cases</i>	<i>Subsequent Cases</i>	<i>Attendances.</i>
South-Eastern Province ..	52	1,866	2,657	1,378	200	57,574	108,591		
Northern Province ..	—	1,400	19	47	168	5,583	11,742		

There are 22 treatment centres in the South-eastern Province and 3 treatment centres in the Northern Province. Four new centres were opened during the year.

ENTOMOLOGICAL LABORATORY

Full statistics are given in the Laboratory's half-yearly reports.

PATHOLOGICAL LABORATORY

Examinations performed in the Freetown Laboratory

			<i>Total</i>		<i>Remarks</i>
			<i>Attendance</i>	<i>P. Falciparum</i>	
BLOOD FILMS			16,331	1,831	1
Africans			168	4	—
Europeans					—
FAECES					4,221
Africans			3,944		
Europeans			277		
			<i>Africans</i>	<i>Europeans</i>	
Taenia			18	—	
Ascaris			185	5	
Ankylostomes			188	—	
Strongyloides			162	—	
Trichuris			91	2	
Ent. Histolytica			88	—	
Ent. Histolytica (Cysts)			13	—	
Giardia (Cysts)			8	1	
Iodamoeba Cysts			1	—	
Trichomonas			49	—	

			Africans	Europeans							
Sch. Mansoni	..	..	—	—					
Blood	..	..	327	14							
Pus	..	..	505	19							
Balantidium Coli	..	..	1	—							
Ent. Coli (Vegetative)	..	..	2	—							
Oxyuris	..	..	6	1							
URINE	..	..	4,090	284							4,374
Albumen	..	..	2,290	188							
Sugar	..	..	255	11							
Acetone	..	..	100	1							
Casts	..	..	129	5							
Trichomonas	..	..	75	1							
S. haematobium	..	..	54	—							
Pus	..	..	1,427	81							
Blood	..	..	205	6							
Oxyhaemoglobin	..	..	—	—					
Strongyloides	..	..	1	—							
SPUTUM											
Tubercle bacilli	..	..	1,455	220	17	2	15	Nil			
VENEREAL DISEASES	..	..	406	—	47	..	..	..			453
Urethral Smear	..	..	140	—	29						
Gonococci	..	..	35 (25%)	—	8						
Vaginal Smear	..	..	192	—	8						
Gonococci	..	..	7 (3.64%)	—							
Trichomonas	..	..	12 (6.25%)	—	2						
Eye Smear	..	..	49	—	1						
Gonococci	..	..	3 (6.1 %)	—							
D.G.I.	..	..	25	—	9						
T. Pallidum	..	..	—	—					
SEROLOGICAL	..	..	..	..	..	..	..	..			10,269
KHAN TESTS	..	..	10,202	—	67						
Strong Positive	..	..	1,018	—							
Positive	..	..	1,657	—	1						
Doubtful	..	..	527	—	1						
LAUGHLIN TESTS	..	..	..	..	..	..	..	..			10,444
WIDAL REACTION	..	..	..	..	..	..	..	..			369
AGGLUTINATION over 1:25	..			Africans			Europeans				
S. typhi H	..	..	342				27				
S. typhi O	..	..	82				9				
S. paratyphi A	..	..	41				—				
S. paratyphi B	..	..	13				5				
S. paratyphi C	..	..	15				8				
S. Enteritidis	..	..	—				—		
S. Group	..	..	8				1				
B. Proteus X19	..	..	5				3				
B. Proteus X2	..	..	4				2				
S. typhi V1	..	..	6				—				
S. typhi V1	..	..	5				—				
BLOOD SEDIMENTATION RATE	..	..	..	..	..	..	..	..			1,156
B.S.R.	..	..	1,084	—	72						
HAEMATOLOGY	..	..	..	..	..	..	..	..			5,37
Red cell Count	..	..	1,230	—	142	= 1,372					
Haemoglobin	..	..	3,254	—	202	= 3,456					
Cell Volume	..	..	3,120	—	190	= 3,310					
White Cell Count	..	..	1,332	—	190	= 1,522					
HAEMOGLOBIN				Over 12gm.	10-12gm.	7-10 gm.	Under 7				
African Male	..	..	395	375	230	90					
,, Female	..	..	366	340	200	47					
Maternity	..	..	146	481	565	99					
European Male	..	..	91	8	3	—					
,, Female	..	..	58	29	2	—					

			Total	Blood	Sperma.	Gonococci		
Clothes ..	..	..	15	9	—	—	
Smears ..	..	..	38	—	1	6	
Weapons ..	..	..	11	5	—	—	
Blood Alcohol ..	..	..	16	—	—	—	
C. S. F. (Kahn) ..	..	..	..	..	..	..	17
					Africans	Europeans		
Positive:	..	..	..	..	15	2	
C. S. F. General (Organisms, etc.) ..	..	..	..	..	1	Nil	
							41	
					Africans	..		
				..	..	39	
				..	..	2	
WATER EXAMINATION							340	
Freetown ..	..	..	..	..	..	..	72
Hill Station ..	..	..	..	..	..	..	192
Kissy Reservoir ..	..	..	..	..	..	..	20
Lungi ..	..	..	..	..	..	..	42
Others ..	..	..	..	..	..	..	13
MISCELLANEOUS							295	
<i>Nasal Smear and Skin Scraping:</i>								
Africans ..	..	..	..	..	..	..	55
Europeans ..	..	..	..	..	..	..	4
Blood Group ..	..	..	..	..	..	..	73
Gland Puncture ..	..	..	..	..	..	..	6
Spermatozoa ..	..	..	..	..	..	..	28
Non-Specific General ..	..	..	..	..	..	..	129
POST-MORTEMS	198
BIOCHEMISTRY	488
					Africans	Europeans		
Blood Urea	110	..	1		
Urea Clearance	3	—	—		
Urea Concentration	7	—	—		
Paul Bunnell	3	..	5		
Blood Sugar	170	..	2		
Glucose Tolerance	11	—	—		
Gastric Analysis	8	..	5		
Urine	5	—	—		
Blood Calcium	6	—	—		
Liver Function Test	58	..	16		
Acid Phosphatase	1	—	—		
Alkaline Phosphatase	7	—	—		
C. S. F.	38	..	3		
Blood Cholesterol	1	—	—		
Various	17	..	1		
Plasma Proteins	9	..	1		
				454	..	34		
YELLOW FEVER INOCULATIONS								2,829

SUMMARY OF THE VARIOUS TESTS UNDERTAKEN IN THE FREETOWN LABORATORY DURING THE YEAR, 1954

				<i>Totals</i>
Blood Films ..	..	..	..	16,499
Faeces ..	..	..	..	4,221
Urine ..	..	..	..	4,374
Sputum ..	..	..	..	1,487
Venereal Diseases ..	..	..	..	453
Kahn Tests ..	..	..	..	10,269
Laughlen Tests ..	..	..	..	10,444
Widal Reaction over 1 : 25 ..	..	..	..	369
Haematology ..	..	..	..	5,377
 Carried Forward ..	..	..	..	53,493

Brought Forward	..	..	..	53,493
Blood Sedimentation Rate	..	..	..	1,156
Bacteriology	..	..	..	1,840
Histology	..	..	..	227
Medico-Legal	..	..	..	80
C. S. F. (Kahn)	..	..	..	17
C. S. F. General (Organisms, etc.)	..	..	..	41
Water Examination	..	..	..	340
Miscellaneous	..	..	..	295
Post-Mortems	..	..	..	198
Biochemistry	..	..	..	488
Veterinary (Rats) Examined	..	..	..	3,737
Fleas	..	..	..	109
Yellow Fever Inoculations	..	..	..	2,829
GRAND TOTAL	..	..	64,850	

EXAMINATIONS PERFORMED AT BO LABORATORY

BLOOD FILMS	..	..	..	..	2,024
Positive P. falciparum	..	..	..	..	865
Positive P. P. Malariae	..	..	..	..	26
Positive Gametocytes	..	..	..	..	10
FAECES	..	..	..	..	1,035
Taenia ..	..	..	..	..	10
Ascaris ..	..	..	..	..	247
Ankylostoma ..	..	..	..	..	174
Trichuris ..	..	..	..	..	49
Strongyloides ..	..	..	..	..	83
Ent. Histolytica ..	..	..	..	..	62
Histolytica Cysts.	..	..	..	..	101
Ent. Coli ..	..	..	..	..	47
Iod. Butschilii ..	..	..	..	..	18
Trichomonas ..	..	..	..	..	16
Giardia ..	..	..	..	..	13
Bilharzia ..	..	..	..	..	11
KAHN TESTS	..	..	..	..	1,086
Strong Positive ..	..	..	..	..	128
Positive ..	..	..	..	..	85
Doubtful Positive ..	..	..	..	..	63
HAEMATOLOGY	..	..	..	..	619
AGGLUTINATION TESTS	..	..	..	..	38
BLOOD SEDIMENTATION RATE	..	..	..	..	173
SKIN SCRAPING	..	..	..	..	23
Positive B. Leprae ..	..	..	..	..	6
URINE	..	..	..	..	996
Positive Sugar ..	..	..	..	..	10
VENEREAL DISEASES	..	..	..	..	147
Positive Gonococci ..	..	..	..	..	54
SPUTUM	..	..	..	..	204
Positive Acid Fast Bacilli ..	..	..	..	..	75
Total..	..	..	6,345		

PORT HEALTH

FREETOWN PORT

Nine hundred and sixty-two ships were boarded. 229 ships received radio pratique. 302 passengers (mostly deck passengers) were vaccinated against smallpox, and 514 members of crews were vaccinated. No ship was subjected to quarantine measures.

FREETOWN AIRPORT—LUNGI

Four hundred and nineteen aircraft visited and were sprayed with insecticides. All passengers' health documents were checked. No passenger or

plane was subjected to quarantine measures, other than disinsectisation of aircraft. All Airport workers were revaccinated against smallpox, and 787 persons were vaccinated against Yellow Fever.

DENTAL SERVICE

The figures for treatments given in Freetown are:

		<i>Patients</i>	<i>Fillings</i>	<i>Extractions</i>	<i>Other Treatment</i>
1949	..	10,088	1,822	6,957	781
1950	..	8,421	1,085	7,743	341
1951	..	9,399	1,548	7,865	140
1952	..	10,909	2,372	8,377	1,066
1953	..	7,789	1,192	6,120	389
1954	..	6,134	702	5,878	731

The figures for treatments given at Bo are:

<i>Patients</i>	<i>Fillings</i>	<i>Extractions</i>	<i>Other Treatment</i>
1,541	223	1,077	862

III—LOCAL AUTHORITY HEALTH SERVICES

All Dispensaries and Health Centres not attached to a hospital are listed here, though in the Colony there has not yet been a complete handover in some places.

LIST OF DISPENSARIES AND HEALTH CENTRES

<i>Area</i>		<i>Place</i>	<i>Type of Unit</i>
Colony	..	Regent	Dispensary
"	..	Kent	"
"	..	York	"
"	..	Waterloo	"
"	..	Songo	Lock-up
"	..	Hastings	Dispensary
"	..	Newton	Lock-up
"	..	Kissy	Dispensary
"	..	Wellington	Lock-up
"	..	Bananas	"
"	..	Hamilton	"
"	..	Goderich	"
"	..	Russell	"
<i>Area</i>		<i>Place</i>	<i>Type of Unit</i>
South-western Province	..	Bauya	Dispensary
"	..	Mabang	
"	..	Mano	Health Centre
"	..	Koribundu	" "
"	..	Sembehun	" "
"	..	Sulima	Dispensary
"	..	Sumbuya	Health Centre
"	..	Gbap	Dispensary
"	..	York Island	" "
South-eastern Province	..	Blama	Dispensary
"	..	Kenema (Jan. 1954)	"
"	..	Pendembu	Health Centre
"	..	Daru	" "
"	..	Koidu	Dispensary
Northern Province	..	Magburaka	" "
"	..	Yonnibana	Health Centre
"	..	Kambia	" "
"	..	Batkanu	Dispensary
"	..	Lunsar	Health Centre

ATTENDANCES AT DISPENSARIES AND HEALTH CENTRES

<i>Area</i>	<i>New Cases</i>	<i>Subsequent Attendances</i>	<i>Total Attendances</i>
Colony ..	35,615	75,507	111,122
South-western Province ..	38,827	97,437	136,264
South-eastern Province ..	18,094	33,649	51,743
Northern Province ..	23,889	32,295	56,184
GRAND TOTAL ..	116,425	238,888	355,313

IV—THE PUBLIC HEALTH

VITAL STATISTICS

Report of Chief Registrar of Births and Deaths, Freetown and Colony

The registration of births and deaths in Freetown and in the Colony is compulsory. Registration in Freetown is believed to be fairly complete. In the absence of a recent accurate census, it is not possible to give informative statistics of birth rates or death rates. In the Colony outside Freetown, registration is less complete and statistics are less reliable.

BIRTHS AND DEATHS REGISTERED IN FREETOWN AND THE COLONY, 1954

LIVE BIRTHS			
	<i>Male</i>	<i>Female</i>	<i>Total</i>
Freetown ..	1,558	1,538	3,096
Rural Areas ..	940	883	1,823
Bonthe (Sherbro Judicial District) ..	34	40	74
Total ..	2,532	2,461	4,993

DEATHS			
	<i>Male</i>	<i>Female</i>	<i>Total</i>
Freetown ..	847	744	1,591
Rural Areas ..	688	595	1,283
Bonthe (Sherbro Judicial District) ..	72	47	119
Total ..	1,607	1,386	2,993

BIRTHS, STILL BIRTHS AND INFANT MORTALITY IN FREETOWN

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Live births ..	1,558	1,538	3,096
Still births ..	106	74	180
Deaths under one year of age ..	—	—	340

INFANT MORTALITY RATE

(Deaths under one year per 1,000 live births)	109.8
Still birth rate, Still births per 1,000 total births	54.9

As 133 of the 180 total registered still births occurred in the Maternity Home among about half of the total registered births and still births, it is likely that outside the Home there has been either under registration of still births, or mistaken registration of still births as infant deaths.

Of the 340 deaths under one year of age, 213 died in the first month of life, a rate of 68 per 1,000 live births.

FREETOWN INFANT MORTALITY RATES FOR THE PAST NINE YEARS
HAVE BEEN

1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
160	208	182	159	158	148	119	143	116	110

The comparatively low infant mortality rate (high as it is by European standards) cannot be accepted uncritically.

About half the births registered in Freetown occur in the Maternity Home, and a number of women come from outside the Freetown registration district to have their children in the Home. Many come into the Home from villages around the suburbs of Freetown, but all births occurring in the Home are registered as Freetown births.

It is likely that some of these children would die during their first year after returning home and they return home very soon after birth. This might reduce the Freetown rate, and would tend to cause a marked increase in the recorded village rates. There are indications that this does occur. 145 registrations of births in the Maternity Home were of women who gave their home address as outside the Freetown registration area, of these 89 gave their addresses as suburban villages, close to Freetown. Infant mortality rates in the suburban villages as recorded, are high, and in the four nearest to Freetown—Wilberforce, Kissy, Murray Town and Aberdeen—the numbers of births known to have occurred in the Maternity Home to residents in them is nearly a quarter of the births registered in the villages.

The births and infant deaths registered in these suburban villages were 382 and 89 respectively. A more comprehensive infant mortality rate for Freetown and its suburbs would therefore be:

	Live births	Deaths under I year
Freetown Registration Area	3,096	340
Suburban Villages ..	382	89
Total ..	3,478	429

Infant Mortality Rate for Freetown and } 123 infant deaths per 1,000 live births
suburban villages.

Analysis of the Freetown registrations shows that Creoles appear to have a lower infant mortality than children born of women belonging to tribes indigenous in the Sierra Leone Provinces.

LIVE BIRTHS, INFANT DEATHS, PER 1,000 LIVE BIRTHS OF RACIAL GROUPS,
REGISTERED IN FREETOWN

<i>Race or Group</i>	1954			1953		
	<i>Live births</i>	<i>Deaths under 1 year</i>	<i>Infant Mortality Rate</i>	<i>Live births</i>	<i>Deaths under 1 year</i>	<i>Infant Mortality Rate</i>
Creoles ..	1,031	74	72	976	89	91
Sierra Leone Tribal Group	1,901	259	136	1,939	263	136
Syrians, Lebanese and Indians	104	2	—	78	2	—
Europeans and Americans	28	3	—	30	—	—
Other Africans & West Indians (Nigerians, etc.) ..	32	2	—	30	1	—
Total ..	3,096	340	110	3,053	355	116

The main tribal groups registered are Temnes, Mendes, Limbas and Kroos. This lower rate for Creoles is shown consistently each year.

It is possible that this lower rate may be due to errors in registration, such as a more incomplete registration of births by the tribal group, but it is noticeable in the Maternity Home records that all but one or two of the babies that were

"born before arrival" at the Home were from the tribal group, and that many of these came to the Home through some complication of child birth. Also none of the cases of tetanus neonatorum which were reported from the Home in babies admitted after birth had occurred outside, occurred in Creoles; they all occurred in babies from the tribal group. This does suggest that the Creole infant mortality may indeed be lower than that of the tribal group.

Rural Areas—Colony.

In the Rural Areas of the Colony the recorded registrations of births and infant deaths are:

			<i>Male</i>	<i>Female</i>	<i>Total</i>
Live Births	..	..	940	883	1,823
Deaths under 12 months	..	..	137	108	245

The records from some registrars, however, are very irregular particularly from some of the smaller villages, and infant deaths are obviously less recorded than births. In two of the remoter places Tassoh and Songo, 196 births with 2 infant deaths and 385 births with 9 infant deaths were recorded.

Many people even in the remoter villages now appreciate the advantages of birth registration, for a birth certificate is often required when children enter school, or young people apply for employment; death registration, particularly the death of children may not appear so important, and the control of burials is defective in many villages.

In the following table infant mortality rates in different Rural Area villages are shown. A correction has been made by adding births occurring in Freetown Maternity Home registered in Freetown of mothers resident in the villages.

The large villages in which registrations appear to be regular are shown:

<i>Village</i>	<i>Registered live births</i>	<i>Registered deaths under 1 year</i>	<i>Infant Mortality Rate per 1,000 live births</i>	<i>Live births at Maternity Home Registered in Freetown</i>	<i>Corrected Infant Mortality Rate</i>
Wilberforce	155	50	323
Murray Town	101	13	129
Kissy	126	26	206
Regent	56	10	179
Hastings	94	11	117
Wellington	107	25	234
Waterloo	88	18	205
York	20	4	200
Newton	112	20	179
Goderich	36	9	250
Russell	111	16	144

With vital statistics of such doubtful validity, it would be unwise to draw any conclusion.

Sherbro Judicial District—Colony.

In the Sherbro Judicial District, the recorded registrations of births and infant deaths are:

		<i>Male</i>	<i>Female</i>	<i>Total</i>
Live births	..	34	40	74
Deaths under 12 months	..	16	13	29
Infant Mortality Rate	..	392		

The registrations mostly come from the compact area of Bonthe town, where registration is of long standing. The high recorded rate may be a reflection of the state of infant health in this swampy malarious town.

Protectorate.

In the Protectorate, registration was conducted throughout the year under the old Ordinance—the Births and Deaths Registration Ordinance. The new Births and Deaths Registration (Protectorate) Ordinance (No. 14 of 1948), is to be used from 1st January, 1955.

There are still five chiefdoms in which registration is compulsory. In only two does registration appear to be at all regular.

REGISTERED NUMBERS OF LIVE BIRTHS AND DEATHS, UNDER 12 MONTHS OF AGE IN SIX CHIEFDOMS WITH COMPULSORY REGISTRATION

Chiefdom	Town	Live Births			Total Deaths			Deaths under 12 Months of age		
		M.	F.	T.	M.	F.	T.	M.	F.	T.
Nongowa	Kenema	349	377	726	308	314	622	122	119	241
Kaiyamba	Moyamba	73	61	134	11	5	16	—	—	—
Nimikoro	Jaiama	27	23	50	17	2	19	—	—	—
Jawi	Daru	16	7	23	18	23	41	2	3	5
Magbema	Kambia	30	41	71	5	1	6	—	—	—
Jong	Mattru	67	62	129	84	45	129	23	13	36

A rough estimates of populations from tax counts of the two chiefdoms where there appears to be some attempt at regular registration is Nongowa 30,570, Jong 16,300. For Nongowa this gives a birth rate of 24 per 1,000 a death rate of 20 per thousand. The registrations are only made in the chief town Kenema, and these figures may be approaching a fairly complete registration, but the sex distribution of births seems to be wrong. The corresponding rates for Jong are absurdly low, but the figures may be fairly complete for the town of Mattru. The figures tend to show a tendency to register births rather than deaths in some chiefdoms.

Though as vital statistics most of the records shown here are of very limited value, it has appeared desirable to expand and classify such records as there are, if only to demonstrate defects and difficulties which need to be overcome.

A good deal more use could be made of such records as exist particularly in Freetown and the Colony, by more detailed classification of deaths by age and sex, and possibly by detailed enquiry and follow-up of a group, or sample, of birth registrations over a period of years.

Infectious Disease Notifications.—The following infectious diseases were notified during the year, 1954:—

			Cases	Deaths
Cholera	—
Plague	—
Smallpox	5
Typhus Fever (Murine)	2
Yellow Fever	4*
Cerebro-Spinal Meningitis	13
Dysentery	3,020
Influenza	14
Pneumonia	732
Poliomyelitis	4
Relapsing Fever	—
Sleeping Sickness	58
Enteric Fever	105
Chicken pox	312

*Suspected cases

Vaccinations.—The following vaccinations were performed during the year:—

		Total
Smallpox
Yellow Fever

Corrigendum—

ANNUAL REPORT—1953.

Paragraphs 54 last sentence.—Figures of 247 to be amended to 24.

APPENDIX V

MISSION AND MINING HOSPITALS AND DISPENSARIES BED STRENGTH

NUMBER AND CATEGORY OF BEDS

Name of Mission	Place	General	Obstetrical	Tubercu-losis	Infectious	Mental	Remarks
MISSION HOSPITALS							
American Wesleyan	Kamakwie ..	..	..	—	—	4	—
Evangelical United Brethren in Christ ..	Rotifunk ..	..	..	24	8	—	plus 7 cots
Methodist ..	Tiama ..	..	..	—	11	—	—
	Segbwema ..	..	..	36	20	—	plus 16 cots
MISSION DISPENSARIES (NOT UNDER THE CARE OF A RESIDENT MEDICAL OFFICER)							
American Wesleyan ..	Kukuna <i>via</i> Rokupr ..	..	..	1	2	—	—
	Bendembu <i>via</i> Makeni ..	..	..	—	1	—	—
	Massumbo <i>via</i> Makeni ..	..	..	—	—	—	—
	Kamabai <i>via</i> Makeni ..	..	..	—	—	—	—
	Bafodia <i>via</i> Kabala ..	..	..	—	—	—	—
United Brethren American ..	Mattru Jong ..	..	..	4	6	—	—
	Gbangbaia (visited monthly) ..	..	..	—	—	—	—
Missionary Church Association ..	Yifin (Niemi Chiefdom) ..	..	..	—	—	—	—
	Magburaka ..	..	..	—	2	—	—
	Sambaia Bendugu ..	..	..	—	—	—	—
Methodist ..	Bunumbu ..	..	..	4	—	—	—
Roman Catholic ..	Jojoima ..	..	..	2	—	—	—
Evangelical United Brethren in Christ ..	Serabu ..	..	..	19	3	—	1
	Jaiama ..	..	..	—	2	3	—
MINING HOSPITALS							
Sierra Leone Selection Trust ..	Yengema ..	..	..	36	4	—	20
Sierra Leone Development Company ..	Marampa ..	..	..	22	3	—	—
MINING DISPENSARY (NOT UNDER THE CARE OF A RESIDENT MEDICAL OFFICER)							
Sierra Leone Development Company ..	Pepel ..	..	..	4	—	—	—
Total ..	..	..	..	180	63	—	25
						—	plus 33 cots

APPENDIX VI

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

DISEASES

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

DISEASES

Inter- mediate List No.	Detailed List No.	Cause Groups	EXPATRIATES						NON-EXPATRIATES								
			In-Patients			Deaths			Out-Patients			In-Patients			Deaths		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
A 24	058	Brought forward	..	..	21	6	1	—	35	13	422	202	50	23	7,996	2,313	
A 25	060	Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 26	061	Leprosy	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 27	062	Tetanus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	121
A 28	080	Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34
A 29	082	Acute poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
A 30	081, 083	Acute infectious encephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
A 31	084	Late effects of acute poliomyelitis and acute infectious encephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
A 32	085	Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
A 33	091	Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
A 34	092	Yellow fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	76
A 35	094	Infectious hepatitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	74
A 36(a)	100	Rabies	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
(b)	101	Louse-borne epidemic typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
(c)	104	Flea-borne endemic typhus (murine)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
(d)	105	Tick-borne epidemic typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
(e)	102, 103, 106-	Mite-borne typhus ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
A 37(a)	110	108	Other and unspecified typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	346
(b)	111	Vivax malaria (benign tertian)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
(c)	112	Malariaæ malaria (quartan)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
(d)	115	Falciparum malaria (malignant tertian)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	338
(e)	113, 114, 116,	Blackwater fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
A 38(a)	123.0	117	Other and unspecified forms of malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	—
(b)	123.1	Schistosomiasis vesical (<i>S. haematoalbum</i>)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,837
		Schistosomiasis intestinal (<i>S. mansoni</i>)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
		Carried forward ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
71	20	2	—	140	47	1,140	587	85	56	21,831	10,077						

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

DISEASES

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

Inter- mediate List No.	Detailed List No.	DISEASES	EXPATRIATES						NON-EXPATRIATES								
			In-Patients			Deaths			Out-Patients			In-Patients			Deaths		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
		CAUSE GROUPS															
		Brought forward	..	..	80	22	2	—	160	59	1,269	662	88	57	31,747	17,127	5
		Trypanosomiasis gambiensis	..	..	—	—	—	—	—	2	1	—	1	3	—	—	—
		Trypanosomiasis rhodesiensis	..	..	—	—	—	—	—	—	—	—	—	—	—	—	—
		Other and unspecified trypanosomiasis	..	..	—	—	—	—	—	—	—	—	—	—	—	—	—
		Dermatophytosis	..	..	—	—	—	—	—	31	11	—	1	—	504	374	—
		Scabies	..	..	—	—	—	—	—	2	—	1	—	—	2,490	1,575	8
A	43 (m) 121 (a)																
	(b)																
	(c)																
	(n) 131																
	(o) 135																
	(p) 036, 054, 059,																
	063, 064, 070,																
	074, 086, 088,																
	089, 093,,																
	096.1–096.6																
	096.8, 096.9,																
	122, 132–134,																
	136–138	All other diseases classified as infective and parasitic								—	—	—	4	2	4	2	—
		Malignant neoplasm of buccal cavity and pharynx								—	—	—	—	—	—	1*	—
		Malignant neoplasm of œsophagus								1	—	—	—	—	—	—	—
		Malignant neoplasm of stomach								—	—	—	—	3	1	—	—
		Malignant neoplasm of intestine, except rectum								—	—	—	—	1	1	1	1
		Malignant neoplasm of rectum								—	—	—	—	2	—	—	—
		Malignant neoplasm of larynx								—	—	—	—	—	—	—	—
		Malignant neoplasm of trachea, and of bronchus and lung								—	—	—	—	1	1	1	1
		Malignant neoplasm of breast								—	—	—	—	3	—	—	6
		Malignant neoplasm of cervix uteri								—	—	—	—	5	—	—	5
		Malignant neoplasm of other and unspecified parts of uterus	..	..	..	..	..	..	..	—	—	—	—	6	—	—	8
		Carried forward	..	86	23	2	—	197	72	1,283	683	91	59	34,918	19,225		

* Case from previous year.

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

DISEASES

Inter- mediate List No.	Detailed List No.	EXPATRIATES						NON-EXPATRIATES										
		In-Patients			Deaths			Out-Patients			In-Patients			Deaths				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.		
CAUSE GROUPS																		
A 54	177	Brought forward	..	..	..	86	23	2	—	197	72	1,283	683	91	59	34,918	19,225
A 55	190, 191	Malignant neoplasm of prostate	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
A 56	196, 197	Malignant neoplasm of skin	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
A 57	155–160, 164, 165, 175, 176, 178–181, 192– 195, 198, 199	Malignant neoplasm of bone and connective tissue	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
A 58	204	Malignant neoplasm of all other and unspecified sites	..	..	..	—	—	—	—	—	—	22	19	7	4	29	19
A 59	200–203	Leukæmia and aleukæmia	..	..	..	—	—	—	—	—	—	3	—	—	—	—	3
A 60	210–239	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
A 61	250, 251	Benign neoplasms and neoplasms of unspecified nature	..	..	..	—	—	—	—	—	4	5	19	74	4	2	33
A 62	252	Nontoxic goitre	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
A 63	260	Thyrotoxicosis with or without goitre	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
A 64(a)	280	Diabetes mellitus	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
(b)	281	Beriberi	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
(c)	282	Pellagra	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
(d)	283–286	Scurvy	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
A 65(a)	290	Other deficiency states	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
(b)	291	Pernicious and other hyperchromic anaemias	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
(c)	292, 293	Iron deficiency anaemias (hypochromic)	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
A 66(a)	241	Other specified and unspecified anaemias	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
(b)	240, 242–245, 253, 254, 270– 277, 287–289, 294–299	Asthma	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
Carried forward	..	All other allergic disorders, endocrine, metabolic and blood diseases	..	..	..	—	—	—	—	—	—	—	—	—	—	—	—
			2	3	—	—	—	—	—	—	—	10	2	3	2	—	143	
			96	31	2	—	—	—	—	—	—	228	110	1,513	1,003	138	93	36,797
																	21,133	

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

DISEASES	Inter- mediate List List No.	Detailed List No.	EXPATRIATES						NON-EXPATRIATES					
			In-Patients		Deaths		Out-Patients		In-Patients		Deaths		Out-Patients	
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CAUSE GROUPS														
Brought forward	96	31	2	—	228	110	1,513	1,003	138	93	36,797	21,133
Psychoses	4	—	—	—	2	—	6	3	2	—	10	6
Psychoneurosis and disorders of personality	3	1	—	—	4	1	3	2	—	—	12	5
Mental deficiency	—	—	—	—	—	—	6	4	—	—	9	4
Vascular lesions affecting central nervous system	—	—	—	—	—	—	—	—	19	7	6	5
Non-meningococcal meningitis	—	1	—	—	—	—	—	—	7	6	4	3
Multiple sclerosis	—	—	—	—	—	—	—	—	—	—	—	—
Epilepsy	—	—	—	—	—	—	—	—	19	9	1	—
Inflammatory diseases of eye	—	—	—	—	—	—	27	11	43	10	—	—
Cataract	—	—	—	—	—	—	—	—	8	1	—	—
Glaucoma	—	—	—	—	—	—	—	—	—	—	—	—
Otitis externa	—	—	—	—	—	—	—	—	55	19	1	—
Otitis media and mastoiditis	—	—	—	—	—	—	—	—	8	1	—	—
Other inflammatory diseases of ear	—	—	—	—	—	—	—	—	3	2	—	—
All other diseases and conditions of eye	—	—	—	—	—	—	—	—	11	3	22	14
(b) 341, 344, 350–352, 354–357, 360–369, 395–398	(b)	388, 389	2	—	—	—	—	—	—	—	—	—	—	—
All other diseases of the nervous system and sense organs	—	—	—	—	—	—	—	—	5	5	17	5
Rheumatic fever	—	—	—	—	—	—	—	—	4	—	1	1
Chronic rheumatic heart disease	—	—	—	—	—	—	—	—	1	—	—	2
Arteriosclerotic and degenerative heart disease	2	—	—	—	—	—	—	—	1	8	—	—
Other diseases of heart	4	—	—	—	—	—	—	—	2	—	2	18
Hypertension with heart disease	—	—	—	—	—	—	—	—	1	—	32	14
Carried forward	126	37	2	—	347	156	1,831	1,162	194	120	40,403	23,370

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN
HOSPITAL AT THE END OF 1953)

Inter- mediate List No.	Detailed List No.	DISEASES	EXPATRIATES						NON-EXPATRIATES								
			In-Patients			Deaths			Out-Patients			In-Patients			Deaths		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
		Brought forward	..	..	126	37	2	—	347	156	1,831	1,162	194	120	40,403	23,370	
A	84	444-447	..	..	..	1	1	—	..	7	3	14	13	—	1	20	15
A	85	450-456	..	..	..	1	—	—	..	—	—	8	2	1	12	2	2
A	86	460-468	..	..	..	7	—	—	..	5	4	59	18	11	4	679	261
A	87	470-475	..	..	..	6	3	—	..	47	30	8	4	1	—	2,031	1,159
A	88	480-483	..	..	..	1	—	—	..	4	—	3	2	—	1	6	6
A	89	490	..	..	..	—	—	—	..	—	—	154	46	9	2	192	63
A	90	491	..	..	..	—	—	—	..	1	—	102	81	13	15	180	135
A	91	492, 493	..	..	..	—	—	—	..	—	—	—	—	—	—	—	—
A	92	500	..	..	..	—	—	—	..	—	—	28	16	4	1	35	16
A	93	501, 502	..	..	..	—	—	—	..	—	—	41	40	—	2	818	422
A	94	510	..	..	..	—	—	—	..	—	—	59	27	5	1	2,636	1,586
A	95	518, 521	..	..	..	—	—	—	..	—	—	—	—	—	—	—	6
A	96	519	..	..	..	—	—	—	..	—	—	—	—	—	—	—	1
A	97(a)	523	..	..	..	—	—	—	..	—	—	—	—	—	—	—	4
(b)	511-517, 520-	..	..	..	..	—	—	—	..	—	—	—	—	—	—	—	1
(b)	522, 524-527	..	..	..	..	—	—	—	..	—	—	—	—	—	—	—	1,593
A	98(a)	530	..	..	..	—	—	—	..	—	1	—	—	—	—	—	160
(b)	531-535	..	..	..	..	—	—	—	..	3	1	—	—	—	—	—	10
		All other respiratory diseases	..	..	..	—	—	—	..	6	3	6	3	3	3	—	258
		Dental caries	..	..	..	—	—	—	..	—	—	—	—	—	—	—	26
		All other diseases of teeth and supporting structures	..	..	..	—	—	—	..	11	3	—	—	—	—	—	54
		Ulcer of stomach	..	..	..	—	—	—	..	1	—	—	—	3	1	—	124
		Ulcer of duodenum	..	..	..	—	—	—	..	10	5	—	—	15	2	1	40
		Gastritis and duodenitis	..	..	..	—	—	—	..	12	10	—	—	23	1	—	28
		Appendicitis	..	..	..	—	—	—	..	2	—	—	—	36	32	4	78
		Intestinal obstruction and hernia	..	..	..	—	—	—	..	—	—	—	—	—	—	—	1,571
		Carried forward	..	..	..	—	—	—	..	474	231	3,157	1,497	282	157	53,394	29,631

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

Inter- mediate List No.	Detailed List No.	DISEASES	EXPATRIATES						NON-EXPATRIATES										
			In-Patients			Deaths			Out-Patients			In-Patients			Deaths				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.		
		CAUSE GROUPS																	
		Brought forward	..	..	..	..	183	64	3	1	474	231	3,157	1,497	282	157	53,394	29,631	
A 104 (a) 571.0		Gastro-enteritis and colitis between 4 weeks and 2 years	..	..	..	..	..	..	..	..	..	15	10	9	8	5	1	266	232
(b) 571.1		Gastro-enteritis and colitis, ages 2 years and over	..	..	..	..	17	2	..	..	..	34	26	58	28	10	6	1,523	1,074
(c) 572		Chronic enteritis and ulcerative colitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	17
A 105 581		Cirrhosis of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52	4
A 106 584, 585		Cholelithiasis and cholecystitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4
A 107 536-539, 542,																			
544, 545, 573-																			
580, 582, 583,																			
586, 587																			
A 108 590		Other diseases of digestive system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,443	3,847
A 109 591-594		Acute nephritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	7
A 110 600		Chronic, other and unspecified nephritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38	21
A 111 602, 604		Infections of kidney	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	45
A 112 610		Calculi of urinary system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	—
A 113 620, 621		Hyperplasia of prostate	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	—
A 114(a) 613		Diseases of breast	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	189	1
(b) 634		Hydrocele	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	603	1
(c) 601, 603, 605-		Disorders of menstruation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—	2,993
609, 611, 612,																			
614-617, 622-																			
633, 635-637		All other diseases of the genito-urinary system	13	14	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A 115 640, 641, 681,		Sepsis of pregnancy, childbirth and the puerperium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13
682, 684		Toxæmias of pregnancy and the puerperium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8
A 116 642, 652, 685,		Carried forward	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
686			235	103	4	1	586	311	3,716	2,116	355	195	63,051	40,158					

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

Inter- mediate List No.	Detailed List No.	DISEASES	EXPATRIATES						NON-EXPATRIATES									
			In-Patients			Deaths			Out-Patients			In-Patients			Deaths			
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	
		CAUSE GROUPS																
		Brought forward	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	117	643, 644, 670–672	Hæmorrhage of pregnancy and childbirth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	118	650	Abortion without mention of sepsis or toxæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	119	651	Abortion with sepsis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	120(a)	645–649, 673–680, 683, 687–689	Other complications of pregnancy, childbirth and the puerperium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	120(b)	660	Delivery without complications	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	121	690–698	Infections of skin and subcutaneous tissue	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	122	720–725	Arthritis and spondylitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	123	726, 727	Muscular rheumatism and rheumatism unspecified	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	124	730	Osteomyelitis and periostitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	125	737, 745–749	Ankylosis and acquired musculoskeletal deformities	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	126(a)	715	Chronic ulcer of skin (including tropical ulcer)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b)	700–714,	716	All other diseases of skin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(c)	731–736,	738– 744	All other diseases of musculoskeletal system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	127	751	Spina bifida and meningocele	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	128	754	Congenital malformations of circulatory system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	129	750, 752, 753, 755–759	All other congenital malformations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	130	760, 761	Birth injuries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	131	762	Post-natal asphyxia and atelectasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	132(a)	764	Diarrhoea of newborn (under 4 weeks)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b)	765	..	Ophthalmia neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(c)	763, 766–768	..	Other infections of newborn	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	133	770	Hæmolytic disease of newborn	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A	134	769, 771, 772	All other defined diseases of early infancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Carried forward	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
			276	135	4	1	773	386	4,359	4,934	366	224	81,076	51,056			35	

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

“E” CODE.—*contd.*—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSE)—*continued*.

Inter- mediate List No.	Detailed List No.	DISEASES	EXPATRIATES						NON-EXPATRIATES									
			In-Patients			Deaths			Out-Patients			In-Patients			Deaths			
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
		CAUSE GROUPS																
		Brought forward	...	...	314	157	4	1	855	415	4,993	5,327	408	231	89,413	54,421	
		Accidental drowning and submersion	...	—	—	—	—	—	—	—	—	—	—	—	—	—		
	AE 146	E929	Foreign body entering eye and adnexa	..	—	1	—	—	3	1	4	—	—	—	194	56		
	AE 147(a)	E920	Foreign body entering other orifice	..	—	—	—	—	—	—	—	—	9	4	—	127	64	
	(b)	E923	Accidents caused by bites and stings of venomous animals and insects	..	—	—	—	—	—	4	1	16	4	—	—	236	118	
	(c)	E927	Other accidents caused by animals	..	—	—	—	—	2	—	12	1	—	—	—	445	289	
	(d)	E928																
	(e)	E910, E911, E913–E915, E921, E922, E924–E926, E930–E965	All other accidental causes	..	..	22	—	—	—	26	5	171	50	3	—	4,478	1,278
	AE 148	E970–E979	Suicide and self-inflicted injury	..	..	—	—	—	—	—	—	—	2	—	—	3	—
	AE 149	E980–E985	Homicide and injury purposely inflicted by other persons (not in war)	—	—	—	—	—	—	—	3	1	1	—	62	58
	AE 150	E990–E999	Injury resulting from operations of war	..	—	—	—	—	—	—	—	—	—	—	—	—	—	
		Total	..	..	336	158	4	1	890	422	5,210	5,387	412	231	94,958	56,284	

APPENDIX VI—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1953)

“N” CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (NATURE OF INJURY)

DISEASES

Inter- mediate. List No.	Detailed List No.	EXPATRIATES												NON-EXPATRIATES													
		In-Patients						Deaths						Out-Patients						In-Patients						Deaths	Out-Patients
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
AN 138	N800–N804	Fracture of skull ..	..	..	..	—	1	—	—	1	21	4	6	—	—	20	5								
AN 139	N805–N809	Fracture of spine and trunk	..	..	1	—	—	—	—	—	35	4	4	—	—	39	5								
AN 140	N810–N829	Fracture of limbs ..	..	..	6	1	—	—	4	—	171	33	6	—	—	365	68								
AN 141	N830–N839	Dislocation without fracture	..	..	2	—	—	—	3	—	16	1	—	—	—	303	86								
AN 142	N840–N848	Sprains and strains of joints and adjacent muscles	2	—	—	—	7	6	20	4	—	—	—	—	—	1,617	508										
AN 143	N850–N856	Head injury (excluding fracture)	..	..	3	1	—	—	1	2	44	3	8	—	—	49	6								
AN 144	N860–N869	Internal injury of chest, abdomen and pelvis ..	—	—	—	—	—	—	—	—	—	14	1	2	—	—	16	1									
AN 145	N870–N908	Laceration and open wounds	..	..	6	2	—	—	—	—	15	9	177	40	4	—	—	3,688	1,052						
AN 146	N910–N929	Superficial injury, contusion and crushing with intact skin surface	..	..	4	1	—	—	—	21	7	40	11	1	—	—	2,591	681							
AN 147	N930–N936	Effects of foreign body entering through orifice	—	—	—	—	—	—	6	—	—	8	4	—	—	—	306	140									
AN 148	N940–N949	Burns ..	..	..	1	—	—	—	—	—	5	1	47	27	4	2	—	246	131						
AN 149	N960–N979	Effects of poisons ..	..	..	—	—	—	—	—	—	3	1	7	6	—	—	47	43							
AN 150	N950–N959 N980–N999	All other and unspecified effects of external causes ..	..	..	20	—	—	—	20	—	106	31	1	—	—	—	1,878	771							
	Total ..	..	..	..	45	6	—	—	85	27	706	169	36	2	—	—	11,165	3,497							